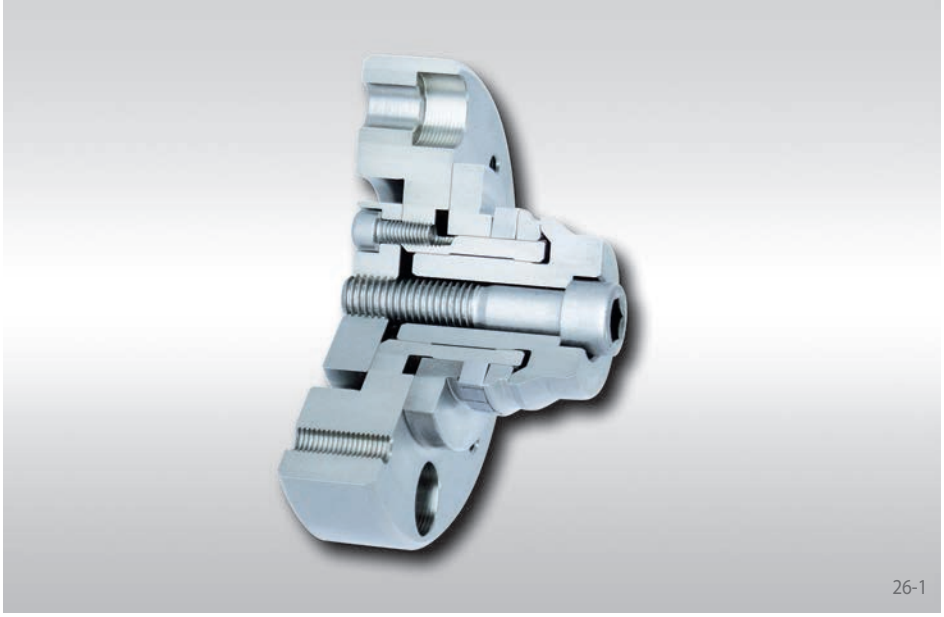
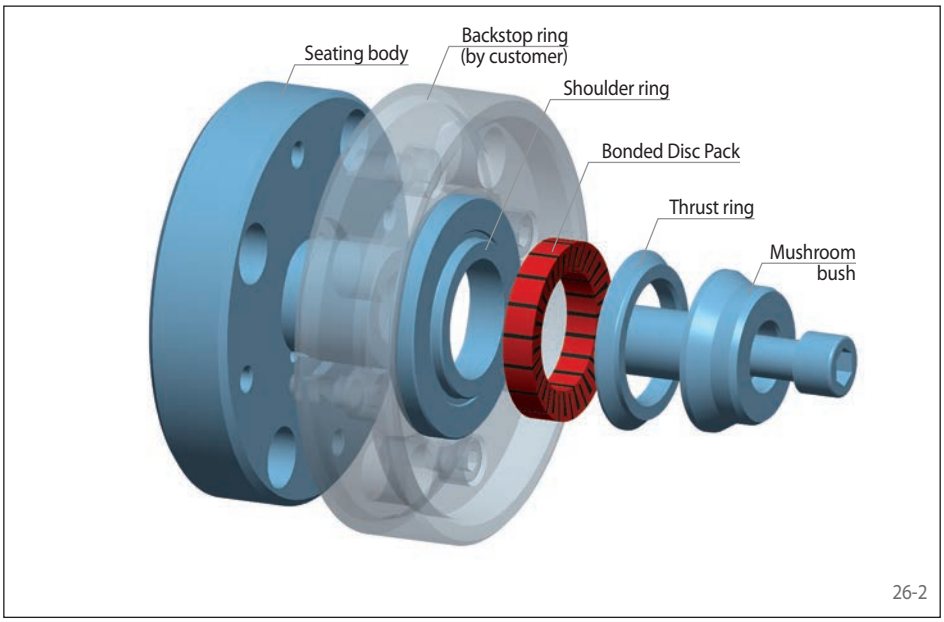


26-1

Features

- For clamping diameters from 18 mm to 140 mm
- High true running accuracy ≤ 0,01 mm
- Permissible component tolerance up to IT11
- Short or long clamping length possible
- Pull-back against external backstop surface or external backstop ring by the customer
- For thin-walled or solid components
- Hand clamping optional possible
- Impervious to ingress of foreign objects due to the rubberized slots in the Bonded Disc Pack

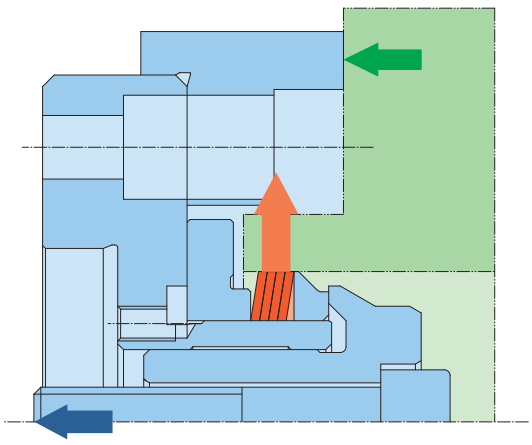


26-2

Configuration

The Bonded Disc Pack Flange Mandrel consists of a seating body, a shoulder ring, a Bonded Disc Pack, a thrust ring and a mushroom bush. A plate with a threaded bore is optionally available for hand clamping. The Bonded Disc Pack Flange Mandrel is attached to the machine with the seating body. The Clamping Fixture is actuated by the central bolt of the mushroom bush, which is connected to the machine power actuating unit. Depending on the required transmitted torque, Bonded Disc Packs of different widths may be installed. The required installation situations for the shoulder ring are shown in Fig. 27-2.

Intermediate Flanges and Spring Force Actuators are shown starting on page 58.



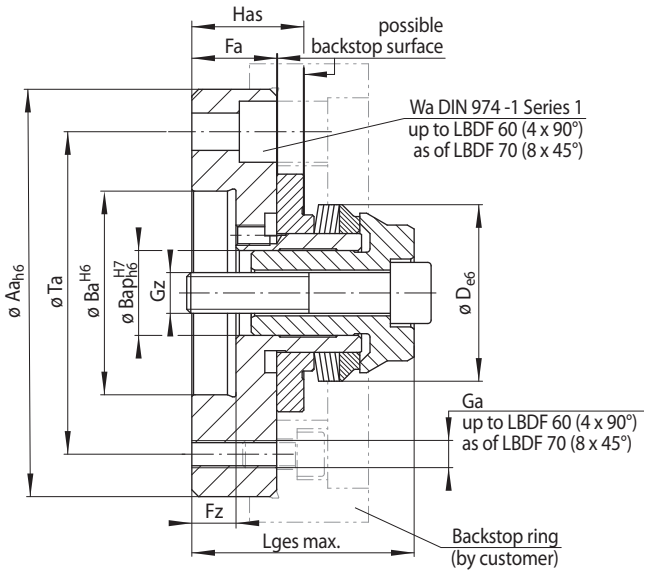
Key:

Axial actuating force | Radial clamping force | Axial pull-back force

26-3

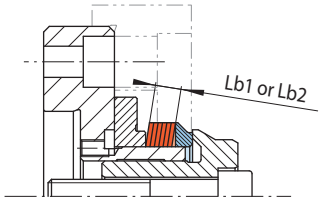
Clamping principle

The Bonded Disc Pack sits pre-loaded on the seating diameter of the seating body. When axial actuating force is applied, the Bonded Disc Pack is raised to an upright position. The component is centred, pressed against the shoulder ring or the backstop and aligned flush. The tipping movement of the Bonded Disc Pack converts the axial actuating force into a radial clamping force that is up to ten times higher.

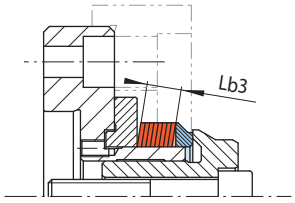


27-1

Installation situations



Bonded disc pack widths Lb1 and Lb2



Bonded disc pack width Lb3

27-2

Size	Achievable clamping diameter	Maximum diameter change**	Bonded disc pack width Lb1			Bonded disc pack width Lb2			Bonded disc pack width Lb3			Aa	Ba	Bap	Fa	Fz	Ga	Gz	Has	Lges max.	Ta	Wa
	D* mm	Δ D mm	Lb1 mm	M Nm	Fm kN	Lb2 mm	M Nm	Fm kN	Lb3 mm	M Nm	Fm kN	mm	mm	mm	mm	mm			mm	mm	mm	
LBDF 11	18 - 22	0,10	4	7	3,1	6	11	4,7	8	15	6,3	70	37	8	20	9	M 6	M 5	25	47	50	8
LBDF 15	22 - 27	0,10	4	15	4,5	6	22	6,8	8	29	9,1	90	50	10	20	9	M 6	M 6	29,5[1)]	54	70	8
	27 - 32	0,15	6	22	7,0	9	33	10,5	12	40	14,0	90	50	10	20	9	M 6	M 6	29,5[2)]	55	70	8
LBDF 20	32 - 37	0,15	6	39	9,6	9	50	14,4	12	60	19,2	90	50	15	20	9	M 6	M 8	28	57	70	8
	37 - 42	0,15	6	38	8,4	9	50	12,6	12	60	16,8	90	50	15	20	9	M 6	M 8	28	57	70	8
LBDF 25	37 - 42	0,15	6	60	12,0	9	90	18,0	12	120	24,0	90	50	18	25	11	M 6	M 10	34	67	70	8
	42 - 47	0,15	6	60	10,8	9	90	16,2	12	120	21,6	90	50	18	25	11	M 6	M 10	34	67	70	8
LBDF 30	42 - 47	0,15	6	80	14,4	9	130	21,6	12	170	28,8	120	60	20	27	13	M 8	M 12	35	69	95	10
	47 - 52	0,15	6	80	12,8	9	120	19,2	12	160	25,6	120	60	20	27	13	M 8	M 12	35	69	95	10
LBDF 35	47 - 52	0,15	6	120	17,2	9	190	25,8	12	250	34,4	120	60	20	25	13	M 8	M 12	33	69	95	10
	52 - 57	0,15	6	120	15,6	9	180	23,4	12	240	31,2	120	60	20	25	13	M 8	M 12	33	69	95	10
LBDF 40	52 - 57	0,15	6	160	19,6	9	250	29,4	12	330	39,2	120	60	25	30	13	M 8	M 12	41	73	95	10
	57 - 62	0,15	6	160	18,4	9	240	27,6	12	320	36,8	120	60	25	30	13	M 8	M 12	41	73	95	10
LBDF 45	57 - 62	0,15	6	210	22,4	9	320	33,6	12	420	44,8	120	60	30	35	16	M 8	M 16	48	84	95	10
	62 - 67	0,15	6	200	20,8	9	310	31,2	12	410	41,6	120	60	30	35	16	M 8	M 16	48	84	95	10
LBDF 50	67 - 70	0,15	6	250	23,2	9	380	34,8	12	500	46,4	140	60	35	30	16	M 8	M 16	40,5	79,5	115	12
	70 - 75	0,25	6	250	24,0	10	430	40,0	16	680	64,0	140	60	35	30	16	M 8	M 16	40,5[1)]	80	115	12
	75 - 80	0,25	6	250	22,8	10	420	38,0	16	670	60,8	140	60	35	30	16	M 8	M 16	40,5[1)]	80	115	12
LBDF 60	80 - 85	0,25	6	370	29,4	10	630	49,0	16	1 000	78,4	160	90	40	35	16	M 8	M 16	49	96,5	135	12
	85 - 90	0,25	6	370	27,6	10	620	46,0	16	990	73,6	160	90	40	35	16	M 8	M 16	49	96,5	135	12
LBDF 70	90 - 95	0,25	6	510	34,8	10	860	58,0	16	1 370	92,8	160	90	45	37	16	M 8	M 16	52,5	101	135	12
	95 - 100	0,25	6	510	33,0	10	850	55,0	16	1 360	88,0	160	90	45	37	16	M 8	M 16	52,5	101	135	12
LBDF 80	100 - 105	0,25	6	660	39,6	10	1 100	66,0	16	1 760	105,6	185	125	50	45	14	M 8	M 20	69,5	121	160	12
	105 - 110	0,25	6	660	38,4	10	1 100	64,0	16	1 760	102,4	185	125	50	45	14	M 8	M 20	69,5	121	160	12
LBDF 90	110 - 115	0,25	6	840	45,6	10	1400	76,0	16	2 240	121,6	185	125	60	45	14	M 8	M 20	70	120,5	160	12
	115 - 120	0,25	6	840	43,2	10	1400	72,0	16	2 240	115,2	185	125	60	45	14	M 8	M 20	70	120,5	160	12
LBDF 100	120 - 125	0,25	6	1 080	51,0	10	1 800	85,0	16	2 880	136,0	200	125	60	45	14	M 8	M 20	66	124	175	12
	125 - 130	0,25	6	1 080	48,6	10	1 800	81,0	16	2 880	129,6	200	125	60	45	14	M 8	M 20	66	124,5	175	12
	130 - 140	0,35	6,3	950	43,9	10	1 520	69,7	20	3 040	139,4	200	125	60	45	14	M 8	M 20	66	126,5	175	12

* Clamping diameter from > up to ≤ adjustable to two places after the decimal point • ** of the clamping diameter of the Clamping Element.

[1)] A number of different shoulder rings are available for sizes LBDF 15 D = 22 - 27. Consequently, when using Bonded Disc Pack widths of Lb3 dimension Has is reduced by 2,5 mm.

[2)] A number of different shoulder rings are available for sizes LBDF 15 and LBDF 50, regardless of clamping diameter. Consequently, when using Bonded Disc Pack widths of Lb2 and Lb3, dimension Has is reduced by 2,5 mm with LBDF 15 and by 2 mm with LBDF 50.

Key

D = Achievable clamping diameter
Δ D = Maximum diameter change of the clamping diameter of the Clamping Element
Lb = Bonded disc pack width
M = Max. transmissible torque
Fm = Required actuating force for component clamping with pull-back action for max. transmissible torque

Example for ordering

Please indicate the size of the Clamping Fixture and the clamping diameter of your component, including component tolerance, and the desired bonded disc pack width in your order:

Size:	LBDF 11
Clamping diameter:	21,47 mm
Component tolerance:	H7
Bonded disc pack width:	4 mm

➡ LBDF 11-21,47H7-4